The tolerance enjoyed by the negro race to the malarial poison is probably the result of long residence in malarious regions. Natural selection has doubtless come into play here in establishing this tolerance as a race peculiarity.

I would, then, place acclimation, inoculation by attenuated viruses, and an attack of any one of the specific diseases, all in the same category so far as the explanation of the protection afforded is concerned; and, according to my view, the explanation of this phenomenon is to be found in the peculiar properties of living protoplasm which enable it, within certain limits, to adapt itself to varying conditions and injurious influences, and to transmit the impression or modification received in so doing, to its offshoots, which continue to perform its functions during the life of the individual.

ARTICLE VII.

OÖPHORECTOMY FOR FIBROID TUMOURS OF THE UTERUS. By G. H. BALLERAY, M.D., of Paterson, New Jersey.

THAT oöphorectomy is destined to be the operation of the future in cases of bleeding fibroid tumour of the uterus, which has resisted all other treatment, which is not susceptible of removal through the vagina, and in which it is evident, that, unless the hemorrhage is arrested, the patient must inevitably perish, can hardly admit of a doubt.

The study of the natural history of cases of uterine fibroid has shown, that, after the menopause, it often ceases to trouble the patient, gradually dwindles away, and finally entirely disappears. It is therefore not to be wondered at that the idea should have suggested itself to surgeons to endeavour to bring about this condition artificially by the removal of the ovaries. It is often a difficult matter to decide upon the proper time for the performance of the operation, inasmuch as, in many cases, after the patient has been reduced to a condition of extreme anæmia from profuse hemorrhage, there is a temporary improvement, which is generally attributed to the use of some one of the fashionable remedies for these cases, which, in all probability, has nothing whatever to do with it. In consequence of these deceptive lulls, the operation is sometimes postponed until the patient is reduced to such a condition of weakness that any operation would be attended by more than the usual danger. The blind faith in drugs which some men exhibit, is to me incomprehensible. How an intelligent physician can go on month after month, pouring medicine into the stomach of a patient who is slowly but surely dying of hemorrhage from a uterine fibroid, is difficult to understand.

The hypodermic injection of ergotine is also sometimes persisted in for

months, when it is evident that it is not doing the slightest good. To thus persist in the use of ineffectual remedies, which involve a loss of valuable time, is highly reprehensible. Therefore, while I would not advocate a resort to surgical interference so long as the hemorrhage can be kept in check by rest in the recumbent posture and the administration of those drugs which are theoretically indicated, and which, as claimed by some, not only diminish the hemorrhage, but actually diminish the size of the tumour, I would most earnestly advise a resort to surgery, before the patient is almost moribund, in those cases in which, notwithstanding the use of the most approved remedies, the patient is steadily getting worse. I have lately seen a case of uterine fibroid in which Mr. Knowsley Thornton performed oöphorectomy successfully. The patient had been allowed to get into a condition of extreme exhaustion from metrorrhagia before Mr. Thornton saw her. Although this patient recovered, I think her recovery is to be attributed more to good luck than good management, so far as her attending physician is concerned. In one of Mr. Tait's fatal cases of oöphorectomy for uterine fibroid, the patient was actually moribund from repeated hemorrhages when the operation was performed. I know of another case, which has been seen in consultation by one of the most skilful ovariotomists in London, but that gentleman declined to operate because the patient was so weak, from long-continued loss of blood, that he feared she would die on the operating table. Why, in a city like London, which can boast of several of the most skilful ovariotomists in the world, a patient should be allowed to get into a condition (to which she has been gradually tending for months) of such extreme prostration as to deter a most skilful and courageous operator from giving her the only chance for her life by an operation which, if done earlier, probably would have been successful, is a question hard to answer. But it would seem as though there must have been either gross ignorance or wanton dereliction of duty on the part of somebody.

The duty of the surgeon in these desperate cases seems to me to be perfectly clear. The rule by which he should be governed is this: If without an operation the patient *must* die, and if an operation holds out any hope of success, however slight, and if the patient, understanding the facts of the case, elect the operation, it is the *duty* of the surgeon to perform it. By acting in accordance with this rule, the surgeon may occasionally subject himself to the charge of being rash, his decision and courage being mistaken for temerity, but no *true* surgeon should ever hesitate to hazard his reputation in the performance of professional duty.

Having thus far spoken in favour of the operation in suitable cases, I will now refer to the difficulties which often attend its performance, and I believe that these can best be illustrated by citing cases which have come under my own observation.

In the early part of last month I saw Mr. Thornton attempt to perform oöphorectomy in a case of uterine fibroid. The tumour reached to the umbilicus. The usual abdominal incision was made, and the left ovary brought into view, transfixed, tied, and removed without difficulty. There was no great difficulty experienced in reaching the right ovary, but its pedicle was short, and in drawing upon it so as to bring the ovary into view sufficiently to enable him to transfix and tie the pedicle, Mr. Thornton had the misfortune to split the peritoneal covering of the uterus and open some enlarged veins lying immediately beneath it. Free hemorrhage followed, which he endeavoured in vain to control by passing a needle, armed with a ligature, beneath the veins and ligating them; but every puncture of the needle was followed by increased bleeding. The abdominal incision had been extended above the umbilicus, and the uterus, with the tumour, turned out of the incision so as to expose thoroughly the part from which the hemorrhage proceeded. The actual cautery was now applied, but with no better result, the blood continuing to well up in streams from the wounded veins. Finding that there was no alternative, Mr. Thornton proceeded to extirpate the tumour with a portion of the uterus. A semicircular incision from below upwards, on the right side, was quickly made down to the tumour, and the latter raised from its bed by passing the fingers beneath it and enucleating it. Its removal was then accomplished by another incision on the opposite side, similar to the first, making, as it were, a double flap operation. The uterine cavity was not opened. After the bleeding vessels had been secured, the uterine wound was closed by the *uninterrupted* suture, and the uterus replaced in the abdominal cavity. The woman died on the *third* day after the operation, partly from septicæmia.

The operation was commenced after 4 P. M., and by the time that it became evident that the tumour must be removed it was nearly dark; in fact the operation was finished by candlelight; consequently Mr. Thornton hurried through the final steps of the operation more than he otherwise would have done. To this may be attributed the subsequent internal hemorrhage which proceeded from vessels which had ceased to bleed while the patient was under the influence of the anæsthetic, and which might have been more efficiently secured had there been more time and a better light to work by. In another case in which the same accident happened to Mr. Thornton during the operation of oöphorectomy, he performed hysterectomy with a successful result.

Three weeks ago I saw Dr. Geo. Granville Bantock perform oöphorectomy at the Samaritan Hospital in a case of fibroid tumour of the uterus.

The tumour reached to within an inch and a half of the umbilicus. The usual incision was made, and the left ovary removed without difficulty. The removal of the second ovary, however, was found impracticable. The pedicle was very short, and the ovary was lying directly behind the uterus, and at first could not be felt. After enlarging the incision up to the umbilicus, Dr. Bantock introduced his hand into the abdomen and passed it as far behind the tumour as possible; but he could barely feel the ovary, which seemed small and atrophied. Finding that it was impossible to reach the ovary without using unjustifiable force, Dr. Bantock closed the incision and put the patient to bed. The ovary which

was removed contained a Graaffian follicle just about to rupture. The subsequent progress of this case was very satisfactory. The temperature never rose above 101°, and only reached that point for a few hours on the second day after the operation. At the menstrual period following the operation the patient lost very little blood; it is, therefore, to be hoped that the ovary which was removed was the active organ, and that the other being atrophied the operation will prove a success.

If the operation of oöphorectomy, in cases of fibroid tumour of the uterus, presents difficulties which tax to the utmost the skill and judgment of such operators as Bantock and Thornton, I hope that it is scarcely necessary for me to caution less skilful and less experienced professional brethren against undertaking the performance of this operation without a due appreciation of their own responsibilities, and without a distinct understanding on the part of the patient or her relatives of the difficulties[1] and dangers of the operation. As to the method of performing the operation my own preference would certainly be in favour of *abdominal* section. Oöphorectomy by *vaginal* section, as suggested by Goodell, will be found impracticable in the vast majority of cases of uterine fibroid requiring the removal of the ovaries. I cannot see the wisdom of the recommendation of Dr. Goodell to attempt the removal of the ovaries through the vagina *first;* and failing in that to proceed to remove them by abdominal section. It certainly cannot be advisable to subject a patient to two operations if one will suffice. If abdominal section is the best adapted to the most difficult cases, then it follows that it is the best in *all* cases; for one never can tell beforehand what difficulties we may encounter in any given case.[2]

If Dr. Goodell had the fear of wounding the peritoneum before his eyes when he advised the vaginal in preference to the abdominal section, then I must say that I think his fears are groundless. The experience of all ovariotomists tends to prove that *traumatic* peritonitis is *exceedingly rare;* and Mr. Lawson Tait, whose experience in oöphorectomy is probably greater than that of any other surgeon, informs me that he has never lost a patient, after that operation, from traumatic peritonitis.

My object in the foregoing pages has been to urge upon my professional brethren the *necessity* of oöphorectomy in cases of uterine fibroma attended

[1] An interesting case illustrating the difficulties of this operation, reported by Dr. M. D. Mann, of Hartford, Conn., will be found in the *American Journal of Obstetrics*, Oct. 1880.

[2] I do not wish to be understood as asserting that vaginal oöphorectomy is *never* preferable to oöphorectomy by abdominal section. I have recently seen several cases of prolapsed ovaries, with chronic ovaritis and retroflexion of the uterus, which have caused great and prolonged suffering, and which have not been amenable to treatment. In these cases the question was raised by the medical attendant as to whether or not oöphorectomy would be justifiable. I believe it would, and that the operation by vaginal section might possibly, in these cases, be preferable to that by abdominal section.

by profuse hemorrhage, before the patient is reduced to such a condition that the operation can only be undertaken as a *forlorn hope*, and, at the same time, to call attention to the difficulties of the operation and the necessity, or at least advisability, of informing either the patient or her relatives of its possible dangers.

London, Nov. 15, 1880.

Article VIII.

Some Points in the Pathology of Ocular Lesions of Cerebral and Spinal Syphilis, illustrated by Cases.

By Charles Stedman Bull, A.M., M.D.; Lecturer on Ophthalmology in the Bellevue Hospital Medical College, New York; Surgeon and Pathologist to the New York Eye Infirmary.

Lesions of the eye and its extrinsic muscles, functional and organic, due to syphilis, and having their origin located in the brain and spinal cord, have been known for many years, and isolated cases have been reported as far back as the middle of the last century, though the clinical history of such cases is very defective, and their pathology either very faulty or entirely ignored. Of late years, however, this subject has been more and more carefully studied from a true scientific standpoint, and it is mainly to the labours of Hughlings Jackson, Lancereaux, and especially of Fournier, and Mauriac, that we owe our knowledge of the pathology of syphilis of the nerve centres with peripheral manifestations. We know now that these ocular symptoms may be developed at any age of the so-called tertiary period, but also that they may be more or less precocious, occurring not infrequently within the first year of constitutional infection, and sometimes as early as the third or fourth month. On the other hand they may be postponed to a very late period, and cases have been reported where the interval between the occurrence of the initial lesion and the appearance of ocular lesions has been twenty years and more, and where no suspicion has been excited of the patients having contracted the disease *de novo*. According to recent statistics cerebral syphilis seems to be most frequent between the third and the eighteenth year after infection, and of all the symptoms of this variety of syphilitic lesion, there are probably none so frequent as those of paralysis of the cranial nerves. Of these, the most common are paralyses of the oculo-motorius, and these are followed in the order of frequency, by paralyses of the optic, auditory, and facial nerves, and at a longer interval by paralyses of the olfactory and trifacial. It is the belief of the writer that these ocular paralyses are frequently the initial symptom of cerebral syphilis. Of course there are instances where the paralysis is only the consequence of a peripheral lesion, as in cases where only one ocular muscle is paralyzed, but these cases are not common and they are excluded from consideration here.